

# Floodplain Task Force Strategies and Tools Survey

## 1. Flood Storage and Conveyance

### A. No Net Rise, Compensatory Storage and Half Foot Rise Alternative

1. Please rank the following three statements. Use a "1" to indicate your first preference, a "2" for your second choice and a "3" for your last choice.

\_\_\_\_\_ A No Net Rise and Compensatory Storage standard should be adopted. (See No Net Rise and Compensatory Storage fact sheet, page 4-6 of *Fact Sheets* booklet.)

Rank	# / 12	Percentage
1	8	67%
2		0%
3	1	8%
N/A	3	25%

#### **Comments:**

- **First choice is actually no adverse impact with whatever tool is necessary including increased standard of (1 1/2x) compensatory storage**
- **These solutions are too simplistic plus limit solutions**
- **Too simplistic to a complicated problem**
- **I believe all of these definitions need more review and comparison to the current standard**
- **"adopted" change to "considered for and further researched**

\_\_\_\_\_ A Half-Foot Rise Floodway standard should be adopted. (see Half-Foot Rise Alternative fact sheet, page 26 of *Fact Sheets* booklet.)

Rank	# / 12	Percentage
1		0%
2	4	33%
3	5	42%
N/A	3	25%

\_\_\_\_\_ A Half-Foot Rise Floodway standard coupled with compensatory storage in the flood fringe or a "density fringe" standard should be adopted. (See *Fact Sheets* booklet: 1 - No Net Rise and Compensatory Storage fact sheet, page 4-6; and 2- Standards Exceeding Minimum Federal Requirements fact sheet, page 8, Snohomish Co, WA example and Definitions list.)

Rank	# / 12	Percentage
1	1	8%
2	5	42%
3	4	33%
N/A	2	17%

2. In reviewing Question 1, please rank the following conditions with "1" being the most desirable to "4" being the least desirable:

\_\_\_\_\_ All development in the 100-year floodplain.

Rank	# / 12	Percentage
1	3	25%
2	3	25%
3	1	8%
4	3	25%
N/A	2	17%

\_\_\_\_\_ All development except for existing development within the City limits.

Rank	# / 12	Percentage
1	3	25%
2	4	33%
3	2	17%
4	1	8%
N/A	2	17%

\_\_\_\_\_ All development except for: 1) existing development within the City limits, and 2) areas under development or redevelopment within the City limits.

Rank	# / 12	Percentage
1		0%
2	1	8%
3	7	58%
4	2	17%
N/A	2	17%

\_\_\_\_\_ Development in new growth areas.

Rank	# / 12	Percentage
1	3	25%
2	2	17%
3		0%
4	5	41%
N/A	2	17%

Please indicate the degree to which you agree or disagree with the statement, with "1" indicating strong agreement, "2" mostly agree, "3" no opinion, "4" disagree, and "5" strongly disagree.

3. If one of the standards identified in Question 1 were adopted, there should be language to allow flexibility regarding stream crossing structures and other public infrastructure. (See page 2-12 of CDM Report.)

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	3	25%
2	6	50%
3		0%
4	2	17%
5	1	8%

**Comments:**

- **But only for currently-existing structures. When they are replaced, must meet standard.**
- **One size does not fit all**
- **New structures should be held to new standard**

4. Specific flood storage areas identified in the City of Lincoln Flood Insurance Study (FIS) for Salt Creek should be reflected in the ordinance. (See Appendix A from 12/3/02 handout.)

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	6	50%
2	3	25%
3	3	25%
4		
5		
N/A:		

**Comments:**

- **We have not been presented any data on Salt Creek. No answer is possible without better info!**

**B. Floodplain Mitigation**

5. A floodplain mitigation concept should be established for flood storage (See Floodplain Mitigation fact sheet, page 4-16 of *Fact Sheets* booklet.)

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	4	34%
2	3	25%
3	1	8%
4	3	25%
5	1	8%

**Comments:**

- **Especially for existing development that wants to expand**
- **It depends on the overall plan**
- **Only under exceptional circumstances**

**2. Natural & Beneficial Floodplain Functions**

**A. Greenfield Approach** (see Greenfield Approach fact sheet, pages 4-12 of *Fact Sheets* booklet.)

6. The 'Minimum Flood Corridor' or other stream buffer standard should be applied within the FEMA-mapped floodplains. (See: 1) Page 4-12 of CDM Report, 2) Appendix B from 12/3/02 handout, and 3) Task Force notebook "Overview of Existing Regulations" section).

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	6	50%
2	2	17%
3	3	25%
4		0%
5	1	8%

**Comments:**

- **For residential not industrial**
- **All of these answer are conditional on the environment (i.e., new development within zoned flood plains, new green fund development and redevelopment**

7. The 'Minimum Flood Corridor' or other stream buffer standard should be applied within the FEMA-mapped floodplain only where there is no mapped floodway.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1		0%
2	1	8%
3	4	33%
4	2	17%
5	5	42%

**Comments:**

- **Should require greater protection than what exists today**
- **Design std. Prevails**

8. The 'Minimum Flood Corridor' or other stream buffer standard should also be applied along smaller streams that do not drain 150 acres.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	5	42%
2	3	25%
3	2	17%
4		0%
5	1	8%
N/A	1	8%

**Comments:**

- **Some exceptions**

9. A standard buffer (such as 110-' each side of stream) should be established.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	4	33%
2	3	25%
3	2	17%
4		0%
5	3	25%

**Comments:**

- **Do we have a basis for the size of the buffer? Either (see McNabb #9)**
- **Heads of tributaries may require less buffer**

10. The Minimum Flood Corridor standard should be modified not to permit stormwater detention cells in the riparian corridor.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	1	8%
2	1	8%
3	3	25%
4	4	34%
5	2	17%
N/A	1	8%

**Comments:**

- **Not sure of the issues**
- **I understand the concept of a riparian corridor but have never been told how to calculate and how big is it, and who calculates it?**
- **Need more info on potential impact—can't cells serve riparian functions?**

11. Some impacts to the buffer area should be allowed, but only if mitigated.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	4	34%
2	3	25%
3	2	17%
4	1	8%
5	1	8%
N/A	1	8%

**Comments:**

- **(special circumstances)—meet no net rise standard**

12. In reviewing Questions 6-11 please rank the following conditions with "1" being the most desirable to "4" being the least desirable:

\_\_\_\_\_ All development in the 100-year floodplain.

Rank	# /12	Percentage
1	1	8%
2	1	8%
3	3	25%
4	4	34%
N/A	3	25%

\_\_\_\_\_ All development except for existing development within the City limits.

Rank	#/12	Percentage
1	2	17%
2	5	42%
3	1	7%
4	2	17%
N/A	2	17%

\_\_\_\_\_ All development except for: 1) existing development within the City limits, and 2) areas under development or redevelopment within the City limits.

Rank	#/12	Percentage
1	1	8%
2	3	25%
3	4	34%
4	1	8%
N/A	3	25%

\_\_\_\_\_Development in new growth areas.

Rank	#/12	Percentage
1	5	42%
2	1	8%
3	1	8%
4	2	17%
N/A	3	25%

**Comments:**

- **I don't understand this one.**

**B. Best Management Development Practices** (see Best Management Development Practices fact sheet, pages 4-14 of *Fact Sheets* booklet.)

- |     |   |   |   |   |                   |
|-----|---|---|---|---|-------------------|
| 13. | Special best management practices should be required in floodplain areas. |   |   |   |                   |
|     | Strongly Agree  |   |   |   | Strongly Disagree |
|     | 1   | 2 | 3 | 4 | 5                 |

Rank	# / 12	Percentage
1	7	58%
2	2	17%
3	3	25%
4		
5		

**Comments:**

- For residential not industrial
- Bldg types or [illeg.] etc.
- "be required" = encouraged?

14. If adopted, best management practices should include swales, water quality wetlands, retention cells, infiltration basins and other similar elements.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	8	66%
2		
3	2	17%
4		
5	2	17%

**Comments:**

- This question missed the point for how to site potential development.

15. In reviewing Questions 13 and 14, please rank the following conditions with "1" being the most desirable to "4" being the least desirable:

\_\_\_\_\_ All development in the 100-year floodplain.

Rank	# / 12	Percentage
1	4	33%
2	1	8%
3	1	8%
4	4	33%
N/A	2	18%

\_\_\_\_\_ All development except for existing development within the City limits.

Rank	# / 12	Percentage
1	1	8%
2	5	42%
3	2	17%
4	1	8%
N/A	3	25%

\_\_\_\_\_ All development except for: 1) existing development within the City limits, and 2) areas under development or redevelopment within the City limits.

Rank	# / 12	Percentage
1		0%
2	2	17%
3	7	58%
4		0%
N/A	3	25%

\_\_\_\_\_ Development in new growth areas.

Rank	# / 12	Percentage
1	5	42%
2	1	8%
3	1	8%
4	2	17%
N/A	3	25%

**C. Floodplain Mitigation** (see Floodplain Mitigation fact sheet, page 4-16 of *Fact Sheets* booklet.)

16. A mitigation system should be established for riparian buffers and/or wetland areas within floodplains?

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	5	42%
2	4	33%
3	2	17%
4	1	8%
5		0%

**Comments:**

- Use banking only for wetlands
- The answer to this question is contingent on the overall policy and assessments

**3. Property Protection**

**A. Higher Freeboard Standard** (See Standards Exceeding Minimum Federal Regulations fact sheet, page 8 of *Fact Sheets* booklet.)

17. The required level for building protection in a 100-year flood plain should be greater than 1 foot.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	3	25%
2	2	17%
3	6	50%
4		0%
5	1	8%

**Comments:**

- **If no adverse impact concept is adopted**
- **I would prefer additional information on this to a simple answer**
- **(<2')**
- **if building in flood plain allowed**
- **existing FEMA maps inaccurate, underestimated**
- **new or existing?**

**B. Cumulative Substantial Improvements** (See Cumulative Substantial Improvements fact sheet, page 18 of *Fact Sheets* booklet.)

18. Please rank the following questions. Use a "1" to indicate your first preference, a "2" for your second choice and a "3" for your last choice.

The City's substantial improvement threshold should be applied:

\_\_\_\_\_ on a cumulative basis

Rank	# / 12	Percentage
1	8	67%
2	1	8%
3	1	8%
N/A	2	17%

**Comments:**

- **I'm satisfied that the existing policy balances the competing needs with property rights!**
- Remove the penalty for owner-occupied improvements**

\_\_\_\_\_ at a threshold lower than 50%

Rank	# / 12	Percentage
1		0%
2	7	58%
3	3	25%
N/A	2	17%

\_\_\_\_\_ on a limited basis only once every 5, 10, 20 years

Rank	# / 12	Percentage
1	2	17%
2	2	17%
3	6	50%
N/A	2	17%

**Comments:**

- **With cumulative effect >49%**

**C. Maintain Storage on Surplus/Vacated Property** (See Maintain Storage on Surplus/Vacated Property fact sheet, page 20 of *Fact Sheets* booklet.)

19. The City should continue its current policy for maintaining storage on surplus/vacated property.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	#/12	Percentage
1	3	25%
2	2	17%
3	5	42%
4	1	8%
5	1	8%

**Comments:**

- **It really depends...**
- **Unless rules for trading mitigation of vacated property through easements**
- **"3" if with current policy unchanged**
- **encourage-remove the mitigation effect of deeding easement to nearly area and thus assure maintaining storage**

20. If you disagree with the statement in Question 16 and believe changes should be made, please rank the following potential policies. Use a "1" to indicate your first preference, a "2" for your second choice and a "3" for your last choice.

\_\_\_\_\_ Don't allow for storage to be 'mitigated' by acquisition of an easement over an alternate flood storage area.

Rank	#/12	Percentage
1	3	25%
2	1	8%
3	2	17%
N/A	6	50%

\_\_\_\_\_ Only allow flexibility in older areas of City or areas within City limits at time of ordinance.

Rank	#/12	Percentage
1	1	8%
2	2	17%
3	3	25%
N/A	6	50%

\_\_\_\_\_ Establish criteria to review on a case by case basis, especially for surplus properties.

Rank	# / 12	Percentage
1	2	17%
2	3	25%
3	1	8%
N/A	6	50%

**Comments:**

- **Only allow mitigation at a greater 1:1 ratio of flood storage**

**D. Property Buyout** (See Property Buyout fact sheet, page 4-8 of *Fact Sheets* booklet.)

21. The City should have a proactive floodplain buyout program with dedicated funds (or local match funds dedicated for grant programs).

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	6	50%
2	5	42%
3		
4		
5		
N/A	1	8%

**Comments:**

- **As available on market for existing areas—voluntary!**
- **Depends...for business or homeowners. "1" for homeowners; "2" for business**
- **Depending on ultimate benefit analysis**

22. If Property Buyouts are considered, there should be criteria for minimizing impacts to neighborhoods and historic districts.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	6	50%
2	3	25%
3	2	17%
4	1	8%
5		0%

23. Strategies should be used to promote buyouts that make sense relative to flood storage/conveyance/contiguous green spaces.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	9	75%
2		
3	2	17%
4		
5		
N/A	1	8%

**Comments:**

- **"5" for homes**

24. Eminent domain should be considered with regard to Question 20.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	4	33%
2	2	17%
3	3	25%
4	1	8%
5	2	17%

**E. Existing Property in Flood Plain**

25. Criteria for "grandfather" exceptions should be established.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	9	75%
2	3	25%
3		
4		
5		

**Comments:**

- **But must incorporate NAI philosophy**

#### 4. **Sustainability**

**A. No Adverse Impact** (See No Adverse Impact fact sheet, page 6 of *Fact Sheets* booklet.)

26. No Adverse Impact is a concept that makes sense to adopt for the City of Lincoln.

Strongly  
Agree

Strongly  
Disagree

1

2

3

4

5

Rank	# / 12	Percentage
1	6	50%
2	2	17%
3	2	17%
4		
5	2	16%

**Comments:**

- **We cannot afford the economic cost to our city and its economic base/tax base**

**B. Cluster/Open Space Development** (See Cluster/Open Space Development fact sheet, page 4-10 of *Fact Sheets* booklet.)

27. There should be a mandatory requirement for cluster development in the floodplain that applies to: (*select one*)

5\_\_\_\_\_All development in the 100-year floodplain.

1\_\_\_\_\_All development except for existing development within the City limits.

0\_\_\_\_\_All development except for: 1) existing development within the City limits, and 2) areas under development or redevelopment within the City limits.

5\_\_\_\_\_Development in new growth areas.

1\_\_\_\_\_N/A

**Comments:**

- **If applicable**
- **Only selected because I had to choose one**

28. There should be additional incentives for cluster development in the floodplain.

Strongly  
Agree

Strongly  
Disagree

1

2

3

4

5

Rank	# /12	Percentage
1	9	75%
2		
3	1	8%
4		
5		
N/A	2	17%

**Comments:**

- **Restriction should have set offs**

**C. Floodplain Development Fee** (See Floodplain Development Fee fact sheet, page 24 of *Fact Sheets* booklet.)

29. The City should charge a floodplain development fee.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	7	58%
2		
3	3	25%
4		
5	2	17%

**Comments:**

- **Depends on the magnitude of the fee. What does the fee support? Staff? Buyout?, etc.**
- **Would no net-rise-no adverse impact remove need for fees? Costs for ultimate buildout w/NNR/NAI would be the impact fee!**
- **More data needed**
- **Yes, yes, yes!**
- **Unless zero net rise with compensatory storage is adopted**

**Watershed Master Planning** (See Watershed Master Plan Standards fact sheet, page 22 of *Fact Sheets* booklet.)

30. The tie between watershed master plans for the City of Lincoln (and its future growth areas) and the zoning and subdivision ordinances should be strengthened to clearly require regulation of the 100-year floodplain as identified in completed master plans (for both development sites and individual buildings) until FEMA maps are amended to reflect the revised floodplain boundary.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	8	67%
2	1	8%
3		
4	2	17%
5	1	8%

**Comments:**

- **We have no data on Salt Creek**
- **Also, consider "strengthening" the known boundaries with compensation for recognized inadequacies**

31. The tie between watershed master plans for the City of Lincoln (and its future growth areas) and the zoning and subdivision ordinances should be strengthened to clearly require development of information regarding stormwater runoff to be submitted on a sub-basin level that is compatible with the City/NRD watershed models.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	8	67%
2		
3	2	17%
4	1	8%
5	1	8%

**Comments:**

- **New areas or existing areas? Redevelopment?**
- **Including urban tributaries that drain less than 150 acres**

32. The tie between watershed master plans for the City of Lincoln (and its future growth areas) and the zoning and subdivision ordinances should be strengthened to clearly require impacts of individual developments be compatible with the master plan goals regarding water quantity.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# /12	Percentage
1	7	58%
2	1	8%
3	2	17%
4		
5	2	17%

**Comments:**

- **New areas or existing areas? Redevelopment?**
- **"Water quantity" = unclear term**
- **is this the modeled flood storage levels for the development in question?**
- **"3" but need more info**

33. The tie between watershed master plans for the City of Lincoln (and its future growth areas) and the zoning and subdivision ordinances should be strengthened to clearly require regulation of the future conditions 100-year floodplain as identified in each watershed master plan.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	8	67%
2	2	17%
3		0%
4	1	8%
5	1	8%

**Comments:**

- **Do we even know the current condition of the 100-year flood plain?**

**E. Application of Standards**

34. The new standards should apply only to the FEMA-mapped and/or master-planned floodplains.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree  
5

Rank	# / 12	Percentage
1	1	8%
2	2	17%
3	2	17%
4	3	25%
5	3	25%
N/A	1	8%

**Comments:**

- **I'm not sure I understand the +/-, advantages/disadvantages of this question. I think we should not divide along FEMA-mapped or mater-planned areas-but-**
- **Fact sheet p. 2**

35. The new standards should include any additional 100-year flood limits shown along tributaries as a requirement of preliminary plats.

Strongly  
Agree

1

2

3

4

Strongly  
Disagree

5

Rank	# / 12	Percentage
1	8	68%
2	1	8%
3	1	8%
4	1	8%
5		0%
N/A	1	8%

36. Are there other standards or combinations of standards that should be considered?

**Comments:**

- **YES – Timing of phasing-in of any new standard**
- **Cost benefit analysis of any standard**
- **Ability to implement without adding any new City Staff**
- **Ability to force on-site storage in excess of existing natural run-off**
- **City to agree to lower existing parks for storage in built environment**
- **Detention [?] tributaries**
- **Best building practices**
- **Limits on fill in conformance with building [?]**
- **To assist in communication with the public, it might be useful to have a VERY SUCCINCT statement of purpose of floodplain regulation, something like Charlotte-Mecklenburg's: 1) to prevent or reduce the loss of life, disruption of vital services and damage caused by floods. 2) To preserve and restore the natural and beneficial functions of floodplains.**
- **At a policy level, we might adopt a statement like Tulsa's: public park, recreation and open space is the best use of floodplain in the city limits.**
- **We should make a statement that we aspire to the city's having the information and technical capacity to do floodplain mapping based on fully urbanized conditions, that is, future development, so that future development does not increase the runoff or flood elevations. (This is a more specific application of No Adverse Impact.)**
- **Might it be possible to link a property tax reduction with the green fields approach?**

- **I fully understand the need to bring structure to this process but I believe this survey is too narrow. A number of the questions use adjectives that probably mean very different things depending on the individual. I marked 3 on a lot of the questions simply to indicate I was not yet comfortable with the knowledge base needed to answer the question.**
- **No Adverse Impact should be overarching principal of all floodplain management.**
- **As information becomes available, and techniques become affordable to establish the mapping, we should make decisions based on ultimate build-out or fully urbanized condition**